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Does It Matter If the Content Is Generated by Generative AI? A Rapid Literature Review of Academic Integrity, Ethics, and Pedagogical Implications

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Abstract The current wave of adoption and use of generative artificial intelligence (GenAI) across various human sectors, particularly in higher education, has prompted debate and discussion about its applications and ethical implications in higher education. This paper presents insight into the question and ongoing debate: Does it matter if the content is generated or written by GenAI? To contribute to ongoing debates and discussions, this article employed a rapid literature review research methodology to examine literature articles within the timeframe of 2024 to March 2025, involving 59 scientific papers across databases such as Scopus, ResearchGate, and Web of Science, as well as grey literature on Google Scholar. The methodology enabled the researcher to review past technological evolution, draw inferences, and link it to the current wave of AI and GenAI in higher education. The paper found that the evolution of computers and technology has raised many questions, tech stress issues, and discussions, which remain worrisome even to this day. The study found that the ongoing debate and discussions on the impact and ethical implications of GenAI in higher education still confuse both academics and non-academics about the future of GenAI. However, the document provided answers to the ongoing question and highlighted some recommendations for the effective application of GenAI in higher education institutions (HEIs).

Keywords: Academic integrity, AI ethics, Artificial Intelligence, Generative AI, Higher education, Rapid literature review

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1. INTRODUCTION

Generative artificial intelligence (GenAI) tools are impacting different human lives and society, like any other technological invention and development. Multitudes across disciplines and sectors, including academia and students globally, are beginning to use GenAI. At the same time, higher education institutions (HEIs) are now formulating policies and regulations to facilitate GenAI adoption and use by academics and students due to growing concerns. According to Keenan [1], at least 70 percent of students have used GenAI, while globally, in 2025, while 80% of undergraduates have used it to support their learning process [2]. These statistics indicate that GenAI is a welcome technological invention and tool in higher education. However, many still believe that the adoption and usage should be prohibited [3]. Other scholars suggested that only educators should permit students to use GenAI [4], while others are reluctant to allow students to use the tools in their academic tasks, like assignments [5]. Permitting competent users to use GenAI will promote trust [6]. Furthermore, granting a permit for the usage of GenAI will help build on the competency to use GenAI [7, 8]. Others are concerned by plagiarism and authorship as students use GenAI [9-12].

These multiple views and reactions continue to dominate the presence of GenAI in higher education by stressing the need to answer this research question. According to Voinea [63] and Lu [64], AI-generated content lacks human authorship and ownership. This means that its content is constantly scrutinized and questioned on integrity, ethics, and many other aspects. Many scholars continue to discuss, debate, and provide insights into how higher education should handle GenAI, but a more comprehensive view is needed to address the ongoing discussions, debates, and divided opinions. These issues and many more bring ethical and academic integrity questions and debates on any content generated by GenAI.

However, a research gap exists, and opinions are divided on the application of GenAI in higher education (check section 3.1), but the question is, does it matter if it is written by GenAI? This question strengthens the views by providing a comprehensive insight into why the ongoing debate and discussions should be discontinued, and allowing a free use and adoption of GenAI content in higher education. However, current research fails to

justify empirically why the ongoing discussions and debates should be ignored and why GenAI content should be recognized as authentic. Then, a proper analysis and investigation are necessary to provide comprehensive answers to the question. Then, this study aims to explore the relevance of ongoing debates and discussions on the content generated by generative AI. This study contributed to existing and ongoing debates in deepening the discussions by providing a comprehensive base to tackle the ongoing worries (concerns), views, and reactions in the ethical application of GenAI in higher education. Based on the empirical ongoing debates and discussions, it is important to provide a paradigm shift in the whole divided views. Then, this study aims to explore the relevance of ongoing debates and discussions on the content generated by generative AI by answering the main research question of this study.

This study is guided by the central research question of whether it matters if academic content is generated by artificial intelligence or written by humans. In addressing this question, the study explores ongoing debates surrounding academic integrity, ethics, and the pedagogical implications of GenAI-generated content in higher education. It also situates the discussion within a broader historical overview of technological inventions and their influence on educational practices. Finally, the study aims to propose practical measures for managing and overcoming key concerns related to the adoption of GenAI in higher education.

2. METHODS

Information systems (IS) research is diverse, and different research methodologies are used in performing primary, secondary, and even literature review studies. The latter helps IS researchers conduct research without collecting primary data. In employing literature review methodology, there are different types. Among them are systematic literature review (SLR), narrative, mini-literature review, rapid review, and many more. Each of them has positive and negative aspects; however, for this study, a rapid literature review (RLR) was used. According to Smela et al. [32] and [33], an alternative to SLR is RLR, which helps to accelerate the research process to produce new knowledge for decision-making. Smela et al. [32] further state that RLR is used to conduct quick research compared to SLR, but maintains similar transparency to SLR and reduces bias. As a quick

research method, some researchers believe that its findings cannot be trusted or considered appropriate for making an informed decision [34, 35]. Although some researchers have an opposing view, stating that RLR findings can be used to make informed decisions, especially in healthcare and policymaking [36, 37].

2.1. Structured sequence of search

In deploying RLR for this study, the following was done: execution of the search, screening, and eligibility checks, data extraction, and synthesis. However, according to Gaman et al [65], these steps are streamlined, concise, and simple compared to a systematic review because the results and findings are produced promptly.

1) The search execution was performed using the dedicated scientific databases Scopus, ResearchGate, Web of Science, and the grey literature on Google Scholar. The integration of academic databases and grey literature is critical to provide recent publications and wide coverage of the literature [38, 39]. The Boolean principle of AND, OR, and NOT to search for the title and abstract through the following keywords: "Generative AI" OR "Artificial Intelligence" OR "GenAI" OR "Generative artificial intelligence", AND "Higher education institutions" OR "HEIs" OR "Internet" OR "Social media" OR "literature review" OR "rapid review methodology" OR "literature review methodology". The NOT focuses more on the exclusion of keywords that are unwanted or unrelated to the topic. Specifically, Google Scholar was used to search the grey literature with the same keywords as mentioned above. At this level, the inclusion and exclusion criteria are applied.
2) Screening and eligibility check – the screening began with evaluating the topic of the research paper (title). The research further evaluates the abstract, introduction, body of content, and research methodology.
3) Data extraction – content is extracted from screen papers and reevaluated for accuracy. In the evaluation process, the research focused only on the important areas of the content.
4) Synthesis involves the process of analysing and interpreting the findings from the papers included. This allows the researcher to understand and identify the research gaps and answer the key question of the paper: 'Does It Matter If the Content Is Generated by AI?" more deeply. The synthesis also allowed the research to provide new information and recommendations in the ongoing debates and discussions.

2.2. Inclusion and exclusion criteria

Inclusion and exclusion criteria are the basis used in RLR. It is used to guide readers through the extensive workflow processes that qualify a publication to be included or excluded from the study. Furthermore, an inclusion and exclusion criterion was used in the search, as well as the publication year. For example, only academic papers published in English were selected and utilised, along with those published between 2024 and March 2025. The final number of articles included in this study was 59. The choice of a publication for the last year is based on current content and relevance to the study [32, 33, 40]. The use of recent publications also helps to provide crucial findings to aid the decision-making process. In this study search process, the researcher first began by screening the title and abstract to determine which articles to include or exclude. Secondly, the entire document was reviewed to determine the relevance of the content to the topic under investigation. This study utilised papers on any type of research methodology, whether qualitative, quantitative, or mixed methods. The excluded articles were those that were contrary to the inclusion criteria. However, the content of the article was excluded from those that did not discuss the topic. Publications outside the year were excluded. In addition, non-academic-focused papers were not used or considered in the study.

2.3. Database retrieval counts

Documenting the used individual retrieval counts promotes transparency, repeatability, and reproducibility. According to Smela et al. [79], it's important to consider reporting individual database retrieval counts while conducting an RLR to maintain transparency and promote reproducibility. For this study, Scopus retrieved 12, ResearchGate retrieved 14, Web of Science retrieved 10, while Google Scholar provided the rest of the counts (23). The use of multiple databases improves wider exposure and reduces any risk of arriving to unfortunate assumption in the study [80].

2.4. Duplicate handling and screen decision

Duplicate handling and screen decision are two important steps in conducting a systematic search process [81]. Duplicate handling is a process used to ensure that duplicate article in more than one searched database, for example, eliminating articles that appear in both Google Scholar and Scopus. The elimination can be done using

reference screening tools or a manager to ensure that only one article counts. For this study, the EndNote reference manager was used. While the screening decision ensures that inclusion and exclusion criteria are defined. These inclusion and exclusion criteria are applied in the study as provided in section 2.2 above. The selected articles and materials provide transparency, accuracy, consistency, and methodological strength and rigour.

3. FINDINGS AND DISCUSSIONS

The findings and discussions of this study were based on synthesized findings (the findings are based on multiple sources to conclude); interpretive discussion (the findings' implications were provided); and the authors' recommendations (actionable recommendations were provided to guide policy formation and future research).

3.1. Mixed academic views and the research problem statement

Over the years, higher education institutions (HEIs) have continued to be transformed by technology. In the present digital age, HEIs are undergoing a transformative process because of the GenAI wave. This transformation has been debated and discussed in relation to some important issues, such as implications, with a focus on ethical considerations and authorship of its content. This pertains to the ongoing debates and discussions about the content of GenAI. This study focuses on the question: "If it is generated or written by GenAI, does it matter?". This question has different scholars' views. For example, Yildiz Durak et al. [13] acknowledged the transformations of GenAI in the education sector, expressing concerns about its authenticity, academic ethics, and misuse of its content. Although UCL [14] states that the rapid evolution in higher education lacks an acceptable way to recognise or cite GenAI-generated content. However, students should be encouraged to adopt the use of GenAI to enhance AI-driven education rather than reject it [15]. Although adoption has come with mixed reactions based on notable concerns, Yusuf et al. [16] found that students are willing to continue using GenAI tools; however, the authors advocated for ethical use, as well as robust guidelines and policies that are necessary to guide usage.

Furthermore, ongoing discussions and debates can be attributed to a lack of guidelines. According to Ogunleye et al. [17], GenAI has a wide application in education; however, the authors found a lack of guidelines to support its use. A study by Xia et al. [18] advocates for the promotion of self-directed learning that will encourage the integration of GenAI into pedagogy, which will help address existing concerns and deepen its benefits in higher education. These benefits include, but are not limited to, personalized learning, instant learning, quick feedback, and easy access to comprehensive responses [68, 69]. The existing literature reveals that GenAI in education is the way to go, with notable concerns that encourage more research and discussion. However, concerns about the authenticity of GenAI content can be seen as overstretched, without considering the benefits that these tools bring to the teaching and learning process. Rather than placing greater emphasis on the content generated by GenAI, a new pedagogical process can be implemented to guide AI in teaching and learning in higher education [17]. In addition, HEIs should shift the assessment to process-oriented and authentic learning [68, 69]. The new approach should help leverage the benefits of GenAI in advancing the pedagogy of higher education for effective and efficient delivery.

Based on the existing literature, these ongoing debates and discussions are continuous. Therefore, this study adds to existing debates by deepening the discussions and providing a comprehensive basis to tackle ongoing concerns, views, and reactions, which raises the question: Does it matter if the content is generated by AI?

3.2. Ethical debate on GenAI in higher education

The application of GenAI in higher education raises ethical questions and debates that revolve around academic integrity. These debates can be regarded as complex because they point to integrity issues and risks. However, usage should balance integrity issues and risks. What are the integrity issues or risks at the level of the application of GenAI in higher education? For example, the integrity risks or challenges involve the enablement of academic cheating, misconduct, and compromise of content authenticity. Kofinas et al. [19] found that educators or lecturers are unable to differentiate between student self-created assessments and AI-generated content, suggesting that GenAI has the ability to change the principles and guidelines of educational integrity. Although a study found

that GenAI encourages academic dishonesty and cheating, as well as the bypassing of intellectual creativity and ownership [20].

3.2.1. Academic integrity risks

The risks to integrity are numerous [21]. For example, GenAI can affect academic honesty. Academic honesty involves the main principle that requires students and academics (researchers) to produce original work while giving accurate credit to the sources and avoiding plagiarism, cheating, or fabrication. This core principle is subject to debate when it comes to GenAI-generated content. Researchers debate academic honesty issues related to GenAI content because it involves biases in the algorithm, the fabrication of information (production of fake information), and the risk of plagiarism [22]. Other researchers believe that current academic assessment arrangements are prone to GenAI falsification and manipulation, requiring the transformation of educational assessment procedures and methods [19]. Furthermore, existing literature indicates some issues and risks to academic integrity, such as

1) Authenticity issues and academic integrity - this risk is centered on ownership, originality, and authorship [23], content plagiarism [24], and the inability to detect GenAI-generated content [25].
2) Accessibility and equity – researchers question whether GenAI content can be fair and accessible without promoting the digital divide in higher education [24, 26].
3) Autonomy, privacy, and data protection – these risks and concerns focus on the intellectual autonomy of the content generated because GenAI undermines intellectual independence and cognitive autonomy [27, 28]. Although research indicates that GenAI promotes personalised learning with an attached cost to users (for example, students) [27].
4) Learning outcomes and educational quality – literature indicates a strong debate on the educational quality of content generated by GenAI, which will lead to a shallower educational system that sidelines traditional pedagogy and deep learning exercises and practices [23]. It can be said that GenAI can promote overreliance in return for destroying critical thinking and creativity among users (students) [23, 29, 30].

5) Environmental and societal issues (concerns) – this risk focuses on issues related to the consumption of electricity by AI, which is associated with higher carbon emissions, costs, and institutional policy changes. Furthermore, the section addresses the issue of employment and job security, with lecturers (faculty members) holding the belief that GenAI in higher education will lead to job losses and displacement, as well as fundamental changes in professional job titles and roles [29]. To overcome these beliefs, professional development in AI and its tools is critical [31].

Against these beliefs and ongoing debates, the fact remains that GenAI applications in higher education cannot be dismissed or controlled. Then, the question is, does it matter if it is written by GenAI? But the question should not only focus on content generation; academics and institutions should refocus on asking and engaging students in assessments and projects that allow students to demonstrate understanding, knowledge, critical thinking, and problem-solving. This argument was supported by those who argued that assessments should shift to oral presentation, process-based methods, and multi-stage approaches to seek reasoning and critical thinking rather than just results or outcomes [66]. Although Coates [67] advises higher-order thinking in assessment, due to integrity issues and concerns, no enforcement measures can guarantee academic honesty and effective learning. This kind of learning shifts from conventional learning to student-centred learning and critical thinking.

3.2.2. Authorship concerns

The claim of authorship on GenAI-generated content remains a critical aspect of AI in higher education. It is widely seen that GenAI produces content that is different from human-written content or text without meeting the authorship criteria. Authorship criteria are seen in contributions to the intellectual ecosystem, accountability, and the lack of ability for human decision-making (the power to approve a final copy or version). According to Bozkurt [70], GenAI is disrupting intellectual labour and the academic publishing or dying slogan. A major problem here is that it is challenging to differentiate GenAI content from human-generated content. This was recorded by an author who found that a journal published an editorial paper written by Microsoft Edge AI without the editorial team realizing it [71]. Currently, these GenAI tools and platforms are

becoming more perfect and sophisticated so that their content can hardly be detected or differentiated from human content.

Some researchers argue that AI ethical workshops and training should discuss and cover the integrity issue rather than banning or stopping GenAI adoption [72]. The author's views align with those of the researcher who proposed a new transformed pedagogical and evaluation process, rather than worrying about AI's content. In addition, the authorship framework of the International Committee of Medical Journal Editors (ICMJE) should be flexible to accommodate a human author as the real author of the content generated by GenAI. In summary, the contribution of the content should be the primary interest rather than the concern of authorship.

3.2.3. Authenticity question

The authenticity question for some scholars is: Is authenticity more important than plagiarism? Should we be concerned about the authenticity of GenAI-generated content? Although authenticity can form within plagiarism when discussing GenAI-generated content. However, GenAI threatens the academic authenticity of students and the assessment design process [73]. Authenticity deals with originality or uniqueness. According to the Maleki model for the Integrity Ecosystem of Higher Education [74], which argues that AI reshapes and transforms academic authenticity, authorship, and ethical questions in different sectors, it cannot be monitored on an individual scale or task. In addition, Kotsis [75] argued that GenAI, such as ChatGPT, can be seen as an authentic "writing partner" or coach in multilingual disciplines. Therefore, authenticity cannot be an issue of concern or question when discussing GenAI content because the platform's algorithm has the ability to analyze massive data and come up with in-depth and insightful novel content that challenges human capability. This is supported by those who believe that GenAI increases creativity [76]. So, GenAI is known to produce authentic content.

3.2.4. Pedagogical transformation question

The pedagogical ability of GenAI is without a doubt. GenAI can transform pedagogical approaches in higher education by providing automated responses (feedback), personalized learning, increased access to materials, and inclusive learning and education.

According to Tillmanns et al. [76], GenAI assists in promoting creativity, mentorship, higher-order thinking, and emotional intelligence. However, others believe that GenAI can lead to "cognitive autonomy", misuse, and addiction [77]. The GenAI platforms are shifting outside alternative tools to a foundation of higher education processes, operations, and practice [78]. Despite all its potential, there is also a dark side to the tools; however, AI literacy and system redesign can enhance adoption in higher education. Recent studies dismiss GenAI prohibitions and permissions but argue that flexible ethical practices are defined by organizational culture, good transparent acknowledgement standards, and digital (AI) literacy [72, 74].

3.3. Overview of technological inventions

The early computer and technological innovations and inventions threw the world (public) into a novel experience with mixed feelings. Then, some questioned its efficiency, credibility, ethical principles, impact on human lives and development, and many more concerns. For example, many believed in their possibilities and potential, while some stressed that it would negatively change humans, making them lazy, and other negative perceptions were expressed. At the same time, the emergence of the Internet was viewed as something that would cripple the human brain and sense of reasoning, negatively changing the way humans assimilate information, process cognition, and consume information [41, 42]. The worry went as far as many labelling it as an agent of cognitive and mental destruction.

After the Internet comes the web and the World Wide Web (www). The web faced many oppositions, mixed feelings, and negative perceptions, which were centred on its ability to change access to information, increase fake news, and affect human ability to think, among others. Fast forward into the future, and social media emerged. Today, social media is the norm and has positively impacted human ability to communicate, facilitate quick access to and sharing of information, as well as spread fake or misleading information. According to Siddiqui and Singh [43] and Krishna et al. [44], social media improves human ability to share and communicate opinions, concerns, issues, and views. Although on the negative side, Ali Adeeb and Mirhoseini [45] and Talwar et al. [46] suggested that social networks promote misinformation and fake news in society, with huge consequences.

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Security, privacy, and ethical issues were also among the main concerns regarding these computer and technology developments and inventions. Notwithstanding these concerns and worries, these developments and inventions continued. However, these technological innovations present a positive impact that outweighs their negative aspects. Now, technological innovation has taken another dimension with the introduction of Artificial Intelligence (AI), especially generative AI (GenAI). This technology is disruptive and changes the way information is accessed, processed, consumed, displayed, and shared. Generative AI can convert text to speech, text to video, text to audio, text to image, text to song, text to animation, and more. The impact and effects are shaking all aspects of human life, business, and society at large. According to scholars, GenAI is impacting personal lives [47-49], educational institutions [5, 50, 51], global ideas and initiatives, and is changing societies and industries [52, 53].

The impact of the GenAI revolution is keeping academia, scholars, and industry players busy in many ways, which can be said to be disruptive. Based on these waves, academic institutions are concerned, and policies are being developed to address such worries, guide their adoption, and manage their usage. Furthermore, the penetration of GenAI raises growing concerns about plagiarism, authorship, and ethical considerations. Psychologically, GenAI is increasing technostress, which is associated with stress for those who intend to adopt and use it. The critical concern regarding GenAI at the higher education institution level can be linked to its ability to generate academic content effortlessly. In addition, some of GenAI's generated sources are questionable, inaccurate, and incorrect. In higher education institutions, a debate is ongoing about whether the use of GenAI constitutes academic cheating and misconduct [7, 54].

For example, initially, some educational institutions completely banned GenAI but later realized the benefits [55, 56], while according to Moorhouse et al. [57] and Zlotnikova et al. [58], some HEIs in the United States of America and Germany have banned the use of GenAI tools. The ban is supported by some scholars who believe that, as a result of integrity concerns, ethical considerations, and academic misconduct, GenAI tools should be banned [3, 12, 59, 60]. Others suggest that it should not be banned [16]. Rather, it should not be used for the whole assignment [61]. Although plagiarism detection systems like Turnitin and a few others are beginning to detect GenAI's written and paraphrased

content. To address some of these challenges, some suggest that GenAI should be listed as an author on the reference list, while others oppose the suggestion [51, 62]. The question remains: Does it matter whether it is generated or written by GenAI?

Against the background of information on computer and technological evolutions, and the associated reactions and worries. The question is: Does it matter if it is generated or written by GenAI? Before answering this question, please. Everyone should think back to when technology, the computer, the web, the Internet, and other forms of technological inventions started, and the kinds of questions that were asked then. But today, how many people go into the library to search for books on the shelves or spend hours going through the pages looking for potential or possible content and information in academic and non-academic writing? The computer and the Internet have eliminated such laborious tasks, providing a better and easier way to search for resources and reducing the time needed to compile content.

In the beginning, let us reflect on the realistic negative perceptions of computers, technology, the Internet, and the web. Are these worries and concerns a barrier to the positive aspects of these innovations? Are the lives of humans better or worse because of these innovations? Are humans not using these innovations? These questions and many more should reflect on your mind, your life, and your society as you support or oppose the use of GenAI in academic writing and the environment. Now, why are we concerned about the simplified process provided by GenAI? Does it matter if it is generated or written by GenAI? GenAI tools and applications should be allowed in HEIs, allowing students and academics to use and master them because of their potential impact and overall benefits across sectors and human life in general. However, research shows that these GenAI tools are being improved for effective usage with more accurate content.

3.4. Recommendations

Nevertheless, HEIs should find ways to assess students' understanding and application of GenAI-generated content.

Hands-on teaching and learning: To use GenAI in higher education, lecturers and tutors should provide a hands-on teaching and learning process that involves the practical application of the learning content and materials. The hands-on learning process could cover, for example, GenAI sandboxes (an environment that can expose students to the inner workings of AI, its limitations, and bias), case studies (using practical and historical examples to support the learning process), and the GenAI challenge (which is focused on knowing how to examine GenAI-generated content against misinformation, fairness, and inclusivity). Critical thinking (any given assessment should promote students' engagement in critical thinking and reasoning rather than just explanations). This will ensure that students are not just copying and relying on GenAI content; rather, they will be able to understand GenAI-generated content, its implications, and practically apply whatever GenAI generates.

GenAI ethics education: Incorporate GenAI education across disciplines to promote the ethical and effective use and application of GenAI in education. The GenAI education can cover GenAI ethics programmes (providing a programme to underscore the ethical implications of GenAI), ethical dilemma debates (organising debates to discuss AI issues and topics), legal and regulatory awareness (educating students and other users on general GenAI data protection laws, regulations, and governance), and promote transparency and responsive GenAI (students should be allowed to use GenAI and indicate when it was used), and students should be guided on how to use GenAI to support their learning, focusing more on critical thinking and brainstorming on the generated ideas than on copy and paste).

4. CONCLUSION

GenAI is a new dawn in simplifying access to content, both for text, audio, images, and videos, for academic and non-academic purposes. The world is no longer the same because of GenAI; however, the ongoing debates, discussions, and negative views continue to hamper its positive impacts. The acceptance, effectiveness, and ethical usage are the responsibility of the users. Academics continue to embrace the transformation brought about by GenAI and other AI tools for better higher education and society at large. This study provided insightful information to enlighten academics, HEIs, policy

makers, and other interested parties on the need to have a paradigm shift in the ongoing debates and discussions to embrace GenAI totally without any restrictions. Rather than debating and discussing policies to ban or restrict usage and adoption, the focus should be on formulating mechanisms and policies to drive teaching and learning through demonstrated understanding, knowledge, critical thinking, problem-solving, and hands-on teaching and learning. However, some policies and regulations can be put in place, not to restrict or ban the adoption and usage, but to allow for free usage and adoption. For future research, scholars can explore how GenAI helps users develop critical thinking, cognitive skills, mastery of learning content, and improve learning productivity. In addition, future research can investigate how GenAI in higher education can enhance users' (students and academics) problem-solving abilities and skills. In conclusion, the focus on the content generated by GenAI should be on the actual benefits and ethical applications of these tools in higher education.

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